

REMARKS

Response under Rule 116

New grounds of rejection were made in the Final Action dated July 10, 2003. In the prior Office Action the claims were rejected as being anticipated under § 102(b) by Chapman. The claims were also rejected as obvious under § 103(a) in view of Chapman as modified by Stone, et al. Also, tertiary references were used to modify Chapman and Stone, et al.

However, the Final Action rejects the claims as being anticipated under § 102(b) by Janssen, et al. and Hamann, et al. *This is a complete change of references* under § 102(b). The Final Action also rejected the claims under § 103(a) as unpatentable over Hamann, et al. in view of Janssen, et al. *This is different from the combination of references applied in the Final Action* under Section 103.

Applicant could not have possibly responded to the references as applied in the Final Action before the time of the Final Action since those references had not been applied in the prior action.

Rule 116 states:

(c) If amendments touching the merits of the application --- are presented after final rejection, --- they may be admitted upon a showing of good and sufficient reasons why they are necessary and were not earlier presented.

Applicant submits that the foregoing amendments are necessary to adequately distinguish over the newly applied references and that they could not have been earlier presented since the references had not been earlier applied. Accordingly, the examiner in charge of the application is requested to give full examination of the claims as amended herewith.

Claim Rejections - 35 U.S.C. § 112

Claims 12-16 were rejected under § 112, second paragraph, as being indefinite. Independent claim 12 was indefinite because of the expression "the holders" as not having an antecedent basis. The language of claim 12 has been modified. It will be noted that the expression "with holders" appears in line 5 of the claim, and the holders are referred to two lines later. Thus, there should be adequate antecedent for this expression at this time.

Claims 13-16 depend from claim 12 and since there is no further objection to these claims on an individual basis, these claims should now be in compliance with § 112.

An additional objection was made to claim 14, to the expression "from one end to the other end." This expression has been deleted from claim 14, leaving claim 14 in proper order.

Since claims 15 and 16 depend from amended claim 14, these claims should now be in proper order.

Background

The invention set forth herein by the claims of the application differs considerably from the references of record in the application. The carcasses received from the first conveyor line are discharged to the second conveyor line in the same orientation. The prior art of record does not teach this.

One of the embodiments of applicant's invention features the holders 11, such as 11A and 11B in Figs. 2 and 5, being rotatably mounted to the transfer wheel 12. *The holders 11 are rotated with respect to the transfer wheel 12 in response to the rotation of the transfer wheel 12.*

In this embodiment, one of the holders 11A has its chain wheel 16 connected to the chain 17 and chain 17 surrounds the stationary chain wheel 18 about the axle 13. As the transfer wheel rotates and the holder 11A revolves about the stationary chain wheel 18, the chain 17 walks around the stationary chain wheel. This results in holder 11A rotating about its own axis as it revolves around the central axle 13 of the apparatus.

Large toothed wheel 25 is free to rotate about the central vertical axle 13. The teeth of the small toothed wheel 24A of the holder 11A engage the teeth of the larger central toothed wheel 25. The large central toothed wheel 25 rotates in response to the movement of the toothed wheel 24A of holder 11A and that motion of the large central toothed wheel 25 is transmitted to all of the other small toothed wheels 24, such as toothed wheel 24B.

With this arrangement, *all of the holders 11A, 11B, etc. revolve about the axis of the transfer wheel 12 and rotate with respect to the transfer wheel 12, and function to discharge the poultry carcasses in the same orientation as received. An embodiment of this* is described in the published application at paragraph 0037.

Stated another way, when the carcasses carried by the prior art transfer wheels are received on their transfer wheel facing north (for example), and then are carried to the other side of the transfer wheel and leave facing south. By contrast, with applicant's transfer wheel the carcasses enter the transfer apparatus facing north (for example) and leave facing north. This is a difference between applicant's invention and all of the prior art of record in this application.

For example, Janssen, et al. does not disclose discharging the carcasses in the same orientation as received. Once a carcass is mounted securely in a slit of the conveyance disk 10 of Janssen et al., the carcass maintains its orientation with respect to the conveyance disk. Because the Janssen, et al. carcasses are non-rotatably mounted to the conveyance disk, they all change their orientations progressively as they move progressively about the conveyance disk to the discharge means 42. For example, if the Janssen et al. conveyance disk receives a carcass and rotates 180 degrees and discharges the carcass, the carcass will have changed its orientation by 180 degrees.

Applicant avoids this result.

Applicant wants to discharge the carcasses in the same orientation as initially received by the transfer wheel, and accomplishes that task as described in embodiments described above. None of the references of record in the application show this function, structure, or result. All of the references appear to lock the carcass to the conveyance disk, such as conveyance disk 10 of Janssen, et al., and rotate the carcasses in unison with the rotation of the conveyance disk.

Hamann, et al. shows in Fig. 1 that the carcasses rotate in response to the rotation of the movement of the equipment. See the different orientations of the carcasses near the bottom of Fig. 1.

Chapman concerns an automatic transfer apparatus, but the apparatus does not discharge the carcasses in same spatial orientation as received. The carcasses of Chapman remain stationary with respect to the section members 7 as the section members revolve, so that the carcasses are progressively reoriented out of their initial spatial orientation.

The remaining references of record are similarly defective in that they do not provide the structure or function or result that is provided by applicant, either individually or in combination with any other reference of record.

Claim Rejections – 35 U.S.C. § 102

Claims 1, 21 and 23 were rejected under § 102(b) as being anticipated by Janssen, et al. or Hamann, et al.

Claim 1 states:

--orientation means operatively associated with said transfer wheel for equalizing the spacial initial orientation of the carcasses in the holder from receipt of the carcass on the transfer wheel to the spacial final orientation of the carcass in the holder at its discharge from the transfer wheel, the spacial initial orientation and the spacial final orientation being identical relative the direction of travel of the carcass from the first overhead conveyor to the second overhead conveyor.

The above described structure is not found or suggested in any of the references of record in the application. All of the references disclose the concept of maintaining the carcass in a fixed orientation with respect to the turning wheel. By contrast, applicant's invention concerns maintaining the original orientation of the carcass, as received from the first conveyor line and as deposited on the second conveyor line.

With regard to claim 21, it states:

--a plurality of holders, each holder being rotatably mounted on said transfer wheel at the perimeter of said transfer wheel and configured to receive one of the carcasses from the first overhead conveyor at the carcass receipt point and to discharge the carcass to the second overhead conveyor at the carcass discharge point; and

holder orientation means responsive to the continuous rotation of said transfer wheel for continuously rotating said holders in unison with respect to said transfer wheel;

said holder orientation means configured so that each carcass received by a holder maintains its rotational orientation as received at the carcass receipt point continuously until delivered to the carcass discharge point

The above noted function is not described, suggested, or disclosed in any of the references, either individually or as combined.

With regard to claim 23, it states:

-- wherein each holder is operatively connected to the other holders and each holder maintains a constant orientation relative to the other holders as it rotates with respect to the transfer wheel.

Claim 23 depends from claim 21 and should be allowable for the same reasons as claim 21. In addition, claim 23 emphasizes the constant orientation of the holders as they rotate with respect to the transfer wheel. This is not disclosed in the applied references.

Claims 2 and 24 were rejected under § 102(b) as being anticipated by Janssen, et al. Janssen, et al. does not disclose the feature of claim 2, of the orientation means being adapted for keeping the spacial orientation of the carcass in the holder constant throughout the transport on the transfer wheel.

Claim 24 states:

--- orientation control means responsive to the rotation of said transfer wheel for continuously maintaining the orientation of said bird holders and the carcasses carried by said bird holders as said transfer wheel rotates, so that the carcasses continuously retain their orientation as received from said first overhead conveyor as they move about said transfer wheel and are delivered to said second overhead conveyor in the same orientation as received from said first overhead conveyor.

Janssen, et al. does not disclose the orientation control means responsive to the rotation of the transfer wheel for continuously maintaining the orientation of the bird holders and the carcasses carried by the bird holders as the transfer wheel rotates so that the carcasses continuously retain their orientation as received from the first overhead conveyor as they move about said transfer wheel and are delivered to the second overhead conveyor in the same orientation as received from the first overhead conveyor. Janssen, et al. discloses *maintaining of the orientation of the carcasses with respect to the transfer wheel*. **This is not what applicant's apparatus does.** In other words, Janssen, et al. locks the birds to the wheel, rotates the wheel, and when the carcass reaches the other side of the wheel, they have been reoriented 180°. Claim 24 maintains the initial orientation of the carcasses as they move about the transfer wheel.

Claim 12 was rejected under § 102(b) as being anticipated by Hobbel, et al. or Veraart.

Claim 12 sets forth:

--- orientation means responsive to the rotation of said transfer wheel for rotating each of said holders about said central shafts and with respect to the transfer wheel during the transport of the holders by the transfer wheel.

Neither Hobbel, et al. nor Veraart disclose this feature.

By contrast, Hobbel, et al. shows timing wheels 16 and 19, referred to in the Office Action as orientation means. The timing wheels of Hobbel, et al. are not for the purpose of orienting the birds. They simply organize the birds in proper spaced relationship about the buffer wheel 15. These timing wheels are described in the specification at column 4, beginning at line 47, and in column 5, beginning at line 9.

Veraart discloses rotating disks 14 and 18, each having recesses 15 and 19. Their functions are described in column 4, beginning at line 14, through line 28. The rotating disks of Veraart do not function the same as applicant's turning disk, and claim 12 adequately distinguishes over both of these references.

Claim 14 was rejected under § 102(b) as being anticipated by Janssen, et al. or Brakels, et al.

Claim 14 sets forth a holder provided with:

two substantially parallel accommodation spaces for the legs of the carcass, the accommodation spaces each forming a continuous open ended slit in horizontal direction, the distance between the accommodation spaces at their one end being different from the distance there between at their other end.

Neither of the applied references teach this. The Janssen, et al. spaces are not open ended. The slots extend inwardly from the wheel and terminate inwardly in a semicircle. This is not open ended. The bird cannot pass through the slot- only one way in and the reverse way out. Likewise, Brakels, et al. discloses a fork-like member 34A-34etc., with recesses. These are not open ended slits as set forth in the claim.

Most importantly, neither of the tools of Brakels, et al. or of Janssen, et al. function like applicant's invention.

Claim Rejections – 35 U.S.C. § 103

Claim 2 is rejected again, this time under § 103(a), as being unpatentable over Hamann, et al. in view of Janssen, et al.

Claim 2 sets forth:

An apparatus according to claim 1, wherein the orientation means being adapted for keeping the spacial orientation of the carcass in the holder constant throughout the transport of the transfer wheel.

By contrast, both of the applied references do the opposite, in that they progressively reorient the spacial orientation of the carcass as the carcass moves about the turning wheel. Applicant avoids this.

Claims 3-5 and 22 were rejected under § 103(a) as being unpatentable over Janssen, et al. or Hamann, et al. as modified by Janssen, et al., and further in view of Chapman.

By contrast, none of the applied references teach the carcass holders being rotatable about themselves, as in claim 3.

None of the applied references teach the relative rotation of the holders with respect to the transfer wheel, as in claim 4.

None of the applied references teach the rotation of the holders being at a ratio of 1:1 with the transfer wheel, as in claim 5.

None of the applied references teach the toothed wheel engaging each holder for rotating each holder in unison, as in claim 22.

Both Janssen, et al. and Hamann, et al. disclose the use of slots for receiving carcasses, and the carcasses become stationary with respect to the slots as the slots revolve around an axle, so that the carcasses are continuously reoriented. Again, applicant intends to avoid this type of function.

Chapman discloses a poultry transfer device that spreads the birds apart or gathers the birds together (Fig. 5). The carcasses are installed on the rotary device and their spacial orientation is maintained with respect to the rotary device, which changes from the entry point to the discharge point.

Claim 6 is rejected under § 103(a) as being unpatentable over Janssen, et al. as modified by Chapman or Hamann, et al. as modified by Janssen, et al. and Hamann, et al. as applied to claim 4 above, and further in view of Stone, et al.

Claim 6 sets forth:

--the orientation means comprising the first orientation means for orienting a first of the holders, and second orientation means for orienting others of the holders, which second orientation means are operated by the first orientation means.

Claim 6 also depends indirectly back to claim 1, picking up the limitations of parent claims 4, 3, 2 and 1.

As previously stated, none of the references disclose the function, structure or result as set forth by applicant. All of the references applied against claim 6 progressively reorient the carcasses as they revolve about the turning mechanism, so that the carcasses become stationary with respect to the turning mechanism. Claim 6, by contrast, reorients the carcasses with respect to the turning mechanism, so that the carcasses are delivered in their original spacial orientation.

Claim 6 adds to those features the second orientation means being operated by the first orientation means. This is not disclosed in any of the references of record.

Claim 7-8 were rejected under § 103(a) as being unpatentable over Chapman as modified by Stone, et al., and further in view of Hobbel, et al. The rejection indicates that Hobbel, et al. discloses the orientation means comprising the first driving disk 19 on the first holder 17 and a second driving disk 16. However, disks 16 and 19 simply control the spaces between the carcass carriers. They are not related to the concept of maintaining the spacial orientation of the carcasses from entry to delivery of the transfer wheel.

Claim 9 was rejected under § 103(a) as being unpatentable over Janssen, et al., Chapman, Stone, et al., Hamann, et al., as modified by Janssen, et al., Chapman, Stone, et al. and Hobbel, et al. as applied to claim 7, and further in view of Hazenbroek. Applicant concedes that Hazenbroek shows a tension pulley/belt arrangement. Accordingly, claim 9 is cancelled. However, the parent claims of claim 9 are patentable as set forth above.

Claims 10 and 11 were rejected under § 103(a) as being unpatentable over Chapman as modified by Stone, et al. as applied to claim 6, and further in view of Kerstholt. None of the references, individually or combined, show the features, function, or structure of applicant's apparatus, as claimed.

Indeed, claims 10 and 11 pick up all of the limitations of their parent claims and add additional features such as the central toothed wheel freely rotatable on the shaft driven by the first toothed wheel, with the central toothed wheel being attached in a rotatably fixed manner to every other holder. This is not made obvious by Kerstholt or the other references. There are no holders in the applied prior art that rotate with respect to the turning wheels in the other

references. Therefore, when Kerstholt is used to add a feature to the other applied references, the accumulation of references do not disclose, suggest or make obvious the basics of the claims.

Claim 13 is rejected as Hobbel and Veraart in view of Stone, et al. However, these references do not disclose the rotation of the holders with respect to the transfer wheel

Claims 15-16 were rejected under § 103(a) as being unpatentable over Janssen, et al. or Brakels, et al. as applied to claim 14, and further in view of van de Nieuwelaar. Van de Nieuwelaar is cited as disclosing inclined turned end members arranged on either side of the accommodation spaces to prevent unintentional backward movement of the legs.

However, claim 15 depends from claim 14, and claim 14 sets forth the continuous open ended slit in a horizontal direction. Van de Nieuwelaar does not disclose the slit in a horizontal direction. The slit 57 of van de Nieuwelaar appears to be inclined in Figs. 2A, 4c and 4d and has a closed end for having the leg of the carcass stop at the closed end of the slot. The horizontal slit as set forth in applicant's claim is for the purpose of passing the leg of the carcass from one open end, through the slit, to the other open end. Van de Nieuwelaar does not disclose this concept. The slot 57 of van de Nieuwelaar does not permit the passage of the poultry leg completely through the slit.

Claims 17-20 were rejected under § 103(a) as being unpatentable over Janssen, et al. or Hamann, et al. as applied to claim 1, and further in view of Meyn. Meyn is cited to disclose accommodation spaces for the legs of the carcasses. However, Meyn does not cure the inadequacies of the primary references.

Claim 24 was rejected again, this time under § 103(a), as being unpatentable over Hamann, et al. in view of Janssen, et al.

Claim 24 sets forth:

--- a plurality of bird holders spaced about said perimeter of said transfer wheel for receiving poultry carcasses from said first overhead conveyor and carrying poultry carcasses from said first overhead conveyor about said central axis to said second overhead conveyor and delivering carcasses to said second overhead conveyor,

orientation control means responsive to the rotation of said transfer wheel for continuously maintaining the orientation of said bird holders and the carcasses carried by said bird holders as said transfer wheel rotates, so that the carcasses continuously retain their orientation as received from said first overhead conveyor as they move about said transfer wheel and are delivered to said second overhead conveyor in the same orientation as received from said first overhead conveyor.

Both Hamann, et al. and Janssen, et al. disclose progressively reorienting the carcasses, instead of continuously maintaining the orientation of the carcasses.


For example, Figs. 4 and 5 of Janssen, et al. show the legs 80C and 80D, oriented differently from the legs 80E, 80F, and 80G. They appear to be about 70° rotated from each other. In other words, the legs are stuck in the slots of the turning wheel and must reorient themselves as they move with the turning wheel about the central axis.

Conclusion

Applicant appreciates the thoroughness by which this application has been examined. The multiple application of patents to the claims of the application indicate that a thorough search was made. However, the references of record do not anticipate or make obvious the claimed subject matter.

According, applicant respectfully requests reconsideration and allowance of the claims. The examiner is invited to call the undersigned attorney for a discussion of the claims and the references.

Respectfully submitted,


George M. Thomas; Reg. No. 22,260

**THOMAS, KAYDEN,
HORSTEMEYER & RISLEY, L.L.P.**
Suite 1750
100 Galleria Parkway N.W.
Atlanta, Georgia 30339
(770) 933-9500

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